

ANALYSIS OF MARINE INCIDENTS IN MALAYSIA

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To my beloved wife, mother and father.

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Thanks to god for his mercy for letting me finish this project despite the depression I've been struggling with. I was doing so fine during my first two semester and then everything changes when I was caught with terrible case of depression. In all honesty, I do feel sadness as they are actually tons of other stuff which I want to do with my study.

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ABSTRACT

There are no clear view of marine incident in Malaysia which not only pose problem for local authorities who try to improve maritime safety through legislation but also to risk management companies and other entities that use maritime casualty statistics in risk and accident analysis. Thus, this study aim to analyse the situation of marine incident in Malaysia by analysing different aspect such as number of marine incident cases, number of fatal incident, types of marine incident, type of ship involves and also to compare result obtained from this study with previous study done by other researchers at different location. The method used to analyse this data is by using linear regression on the number of cases, type of marine incident, type of ship and fatal marine incident to analyse their growth pattern. This study then proceed in using f-n chart to find social risk curve in order to determine the probability of accident with 10 or more death and also to compare it with previous study in order to evaluate the value of social risk curve of Malaysia. Data used for this study are provided by Marine Department of Malaysia as well as other sources. After analysing, it is found that the number of cases show decreasing pattern over the year. For the type of ship and type of incident, it show different pattern for each different categories. It is also found out that it is 50% less likely for an accident with 10 or more death to occurred compare to incident with 1 to 10 death to occurred, which is far more risky when compare with previous study. The conclusion that this study achieved is that the Malaysia waters are dangerous but at the same time also show that measure taken by the local authority do have their effectiveness as some of the aspect such as number of cases are actually decreasing. As recommendation, it is suggested that more effort should be put by authorities in improving Malaysia marine safety as well as conducting more closely with researcher in obtaining better solution.

ABSTRAK

Kurangnya pengetahuan jelas tentang situasi insiden marin di Malaysia akan mewujudkan masalah bukan sahaja kepada pihak berkuasa, tetapi juga kepada entiti dan badan syarikat yang terlibat dalam pengurusan risiko maritime. Oleh yang demikian, kajian ini dijalankan bertujuan untuk menganalisis insiden marin di Malaysia dengan mengkaji beberapa aspek insiden marin seperti jumlah kes insiden, jumlah kapal terlibat, jumlah insiden melibatkan kematian dan sebagainya. Kajian ini juga akan membandingkan hasil kajian yang diperoleh dengan hasil kajian terdahulu bagi membolehkan perbandingan dibuat terhadap keselamatan perairan Malaysia. Kajian ini menggunakan *linear regression* untuk mengkaji corak perkembangan insiden-insiden marin di Malaysia. Kajian ini juga menggunakan graf $f-n$ untuk mengkaji nilai risiko sosial di Malaysia. Data-data yang digunakan dalam kajian ini adalah dari Jabatan Laut Malaysia dan sumber-sumber lain yang berkaitan. Setelah analisis dilakukan, didapati jumlah kes insiden di Malaysia menunjukkan corak penurunan. Corak bagi data-data lain adalah berbeza antara satu sama lain. Apabila perbandingan dibuat, didapati bahawa kebarangkalian berlakunya insiden yang melibatkan 10 atau lebih nyawa adalah 50% lebih kurang dari insiden yang melibatkan 1 hingga 10 nyawa, menunjukkan perairan Malaysia adalah perairan yang bahaya. Namun, kajian ini juga menunjukkan langkah-langkah yang diambil oleh pihak berkuasa adalah berkesan kerana terdapatnya pengurangan bilangan kes insiden marin di Malaysia. Sebagai cadangan, kajian ini menasihatkan agar pihak berkuasa lebih banyak berusaha dengan penyelidik-penyelidik bagi membolehkan jalan penyelesaian yang lebih efektif boleh diperolehi.